



## *The impact of artificial intelligence in digital marketing*

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# ABSTRACT

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<b>Keywords:</b>	Artificial Intelligence (AI) Machine learning (ML) Search engine optimization (SEO)	
<b>Research question</b>	<i>How does AI affect digital marketing and help companies improve their performance?</i>	
<b>Purpose:</b>	The aim of this study is to determine the Impact of AI in digital marketing by analyzing and determining how companies utilize AI to improve performance.	
<b>Method:</b>	This is a qualitative study with an inductive approach conducted using semi structured interview questions and analyzed using template analysis.	
<b>Conclusion:</b>	Marketers have high standards that AI will continue to develop automation parameters and that automation will gradually take over the majority of marketing procedures. Marketers today are willing to learn how to improve digital marketing to touch on every customer and clearly express their desires. AI can help companies reach their potential marketing goals.	

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## **1.0 Introduction**

*The purpose of this chapter is to introduce the reader to the thesis topic and the background will include information about the main concepts of the research question, followed by the research problem. Finally, the scope and the significance of the study will be presented.*

### **1.1 Background**

When a group of 1,500 top corporate leaders in the United States were interviewed regarding artificial intelligence in 2017, just 17% stated they were acquainted with it and this shows that the majority of people are unfamiliar with the concept of Artificial intelligence (Deloitte, 2017). (Kaplan, 2019) defines Artificial intelligence as a system's capability to accurately understand external input, learn from it, and apply that knowledge to accomplish specific performance targets through adjustable adaptation.

Marketing is an area considered to be among the most viable for improvement and it was discovered that the deployment of artificial intelligence in marketing has the most revenue potential and success (Fagella, 2019). The PwC (2017) report anticipated that investments in artificial intelligence development would result in a 14% increase in global GDP by 2030. Furthermore, it was also forecasted that AI would generate \$13 trillion in output by 2030, increasing the global GDP by about 1.2 percent annually (Bughin et al., 2018).

According to a survey of worldwide marketers done in late 2020, 41% of respondents reported an improvement in revenue growth and enhanced performance as a result of the employment of AI in their marketing initiatives. Another 38% linked the creation of tailored consumer experiences to the usage of AI in marketing (Gutman, 2021). Artificial intelligence is likely to contribute a lot to previously human performed functions such as effective communication, conversing, and showing empathy. Smart virtual assistants are already an example of this trend in action and some companies are already using this through digital marketing to provide new possibilities (Faruk et al., 2021). Marketing in addition to fields such as finance, healthcare, engineering and education have been reformed drastically in the last two decades because of AI (Huang & Rust, 2018; Rust, 2020). Huge digitized effects are being introduced due to the fact that the intercommunication between consumers and firms is becoming more personal which is the main reason behind the rise in investments in machine learning by organizations to boost

their marketing competence, because of the affluence of data. BCC research estimated that a yearly growth rate of 43.6% will affect the market of machine learning solutions to reach 8.8 billion by 2022 (Information Technology Industry Analysis & Market Research Report, 2022).

Technological advancements are enabling enterprises to produce massive quantities of goods and use digital marketing to expand industries' opportunities to advertise and sell products to clients, digital marketing has the potential to have a profound effect on individuals at a specific moment, in a specific location, and via a specific channel (Ali & Manisha, 2020). Furthermore, Industrial advancements in digital marketing are the result of merging big data and scientific study on smart applications (Ali & Manisha, 2020).

AI has an important role in digital marketing and will facilitate the creation of new business opportunities (Kolbjrnsrud et al., 2016). It is essential that businesses incorporate AI into their marketing strategies if they hope to remain competitive (Pradeep et al., 2019). This thesis investigates the practical applications of Automation and artificial intelligence in marketing, particularly digital marketing. This decision was influenced by the prevalence of digital marketing in businesses. Having considered the pervasiveness of Artificial intelligence and machine learning and the dynamic nature of the industry, the focus is on analyzing its effect when applied in digital marketing.

## **1.2 Research problem**

Modern marketing requires an in-depth grasp of customers' wants and interests, as well as the capacity to act swiftly and effectively on that knowledge. The majority of businesses who have not included AI in their marketing are unable to make real-time, data-driven decisions. (Camilleri, 2017). A huge amount of data is collected in the process for personalization, which enables businesses to better identify consumer behavior and interests across multiple platforms and touchpoints, and therefore better fit customer interest with the suitable content and increase sales (Dwivedi Y. K, 2020). Especially when consumers are engaged throughout their journey with ecommerce, from awareness, investigation, and assessment to buy, review, and consumption (Mangiaracina et al., 2009). Also, when it comes to personalisation in ecommerce, there is uncertainty over what defines personalization, and many suppliers claim to offer it.

However, to each individual, personalization means something different and most importantly it should be based on solid design bedrock and an easy customer experience across all of the sellers'

interconnections, beginning with a one-to-many approach and progressing to a one-to-one experience based on known information about an individual (Elizabeth, A. & Lukas, E., 2020).

Wedel and Kannan (2016) concluded that effective digital marketers are increasingly expected to have expertise both in marketing management and the practical applications of artificial intelligence. This indicates that marketers that comprehend AI systems and the relevant methods of AI in the employed marketing tool are much more likely to conduct successful campaigns. This is due to the fact that they are aware of AI's technological constraints. The research reveals that in some instances, the assumptions of marketers exceed AI competence. And based on the growing need to grasp both marketing and artificial intelligence, the research investigates their connected understanding for conducting successful marketing campaigns.

“Marketers misplaced confidence in AI capabilities to solve problems or replace a process” (Iskef, 2021). What is the impact of AI on digital marketing? Digital marketers are still searching for a definitive answer to this question, but recent research from Gartner shows that AI could be a disruptive force in the market, particularly given how consumers are embracing it.

While many digital marketing experts remain skeptical about the power of artificial intelligence and machine learning in their industry, the potential for transformational change and innovation is apparent. However, for now these technologies have only been used sparingly in digital marketing. According to Thilagavathy & Kumar (2021), an Artificial Intelligence-driven global business advisory firm, AI and digital marketing is expected to increase by 12% in the next few years. This is astonishing because research on this subject area is limited.

The research gap for this topic is quite large, with a lot of gaps in the knowledge that are available to any person trying to learn more about the topic. The research on artificial intelligence and digital marketing appears to be scattered across a few different publications, but there doesn't appear to be a single article that covers all solutions resulting from artificial intelligence and its effects on digital marketing.

### **1.3 Purpose and objectives**

The aim of this study is to determine the Impact of AI in digital marketing. It will contribute to the theories already existing about the topic of AI in digital marketing and how it's impacting marketing. The objective of this study is to analyze the influence of artificial intelligence and its uses in digital marketing by analyzing how it is being used in digital marketing and also determine how companies utilize it to improve their performance. Therefore, the research question of this paper will be:

**How does AI affect digital marketing and help companies improve their performance?**

### **1.4 Scope and significance of the study**

Because marketing is such a broad subject, the writers were forced to confine their focus to digital marketing. The writers' decision to focus on digital marketing and artificial intelligence was motivated by the quantity of coverage it gained in the media prior to the thesis writing process. The media coverage of this subject persisted throughout the thesis writing process. Additionally, the authors are interested in pursuing careers in the field of marketing in the near future. The authors' goal in writing the thesis is to get the most pertinent and valuable knowledge about Artificial intelligence's relationship to digital marketing. The arguments outlined above influenced the writers' decision to include digital marketing as one of their thesis's focal points. The author will focus on artificial intelligence, machine learning, big data, and digital marketing in particular. This will be accomplished with the goal of defining significant benefits. Furthermore, the authors will talk about the future of artificial intelligence in marketing and in business. For marketing professionals, the authors hope that this thesis will allow them to understand and deal with AI in an easier way. The writers of this thesis believe that by presenting their findings, they would inspire other marketers to learn more about digital marketing's rapidly evolving sector. Finally, the process of writing and investigating the thesis will help the authors advance their careers as they will gain a greater understanding of AI and digital marketing from a variety of perspectives and digital marketing breakthroughs that are taking place in 2022.

## **1.5 Key concepts.**

**Artificial Intelligence (AI)** Artificial intelligence is the concept and development of computer systems that can do activities that would ordinarily need human intelligence. Visual recognition, voice recognition, making difficult decisions on challenging problems, and the ability to interpret languages are all examples. (Oxford University press, 2019).

**Machine learning (ML)** is the ability of a computer to learn from raw data instead of being given commands by humans. This means that machines can discover patterns and derive important information from the data they collect from their detectors. (Buller, Gifford, & Mills, 2018.)

**Search engine optimization (SEO)** is the procedure of filtering a website using on-page and off-page methods in order for it to be indexed and categorized effectively by search engines like Google, Bing, and others. It takes a lot of effort to get a successful and organic listing in a search engine results page. (Dodson, 2016).

## **2.0 Literature review and conceptual model**

*This chapter's goal is to expose the reader to the fundamental ideas of AI and to acquaint them with AI, that is machine learning, deep learning and digital marketing. The data gathered over the last two decades is a great asset for the youth of today. Despite the fact that professionals may be unaware of the possibilities that data could have offered to organizations, data now begins the daily operations of enterprises.*

### **2.1 Artificial Intelligence**

AI refers to the transfer of human intelligence to machines. The idea has been around and thorough AI research can be followed back to the 1950s, when Alan Turing developed the famous Turing Test, when he proposed to consider if machines can think. (Turing, 1950), and John McCarthy coined the term Artificial Intelligence in 1955, when John arranged the 1956 Dartmouth Summer Research Project on Artificial Intelligence. An AI concern, according to their proposition, seems to be "that of making a machine behave in ways that would be called smart if a human were doing so" (McCarthy et al., 1955).

Artificial Intelligence (AI) contributes significantly to improving many operations and services worldwide. Wichert (2020) discusses how artificial intelligence is used in quantum computing and machine learning. It aids in the rapid resolution of difficult situations (Wichert, 2020).

The number and complexity of data rapidly increase beyond what humans can effectively handle (Wichert, 2020). Individuals often struggle or cannot resolve connected issues swiftly, but machine learning has made this feasible and quicker (Wichert, 2020). Quantum computing can solve issues in seconds, hence simplifying labor (Wichert, 2020). Wichert said that advances in quantum information systems necessitate machine learning in AI (Wichert, 2020). The advantages will continue to accrue even without a comprehensive quantum computing solution (Wichert, 2020). Pujol et al. (2014) discuss current breakthroughs and applications in AI in their paper "Artificial Intelligence Research and Development." Deepfake, "Robot Hand Dexterity, AI-Generated Synthetic Text, Upside Down Reinforcement Learning, Three-Body Problem Solving, and Expandable Artificial Intelligence" are all examples of common breakthroughs in artificial intelligence (Pujol et al., 2014). Robot Hand's Dexterity is a project in which trained robots are used to address real-world challenges (Pujol et al., 2014). They are taught in a

simulated scenario how to transfer information effectively into a new context (Pujol et al., 2014). This technique is utilized to aid with dexterity development (Pujol et al., 2014).

Reig-Bolao (2013) identifies generated Adversarial Networks (GANs) as an improvement in artificial intelligence. GANs address several important ethical issues (Reig-Bolao et al., 2013). There is an application of algorithmic designs to develop neural networks to create an imaginary world (Reig-Bolao et al., 2013). The created network converts a vector to an audio or picture matrix, then is connected to a discriminator system. A discriminator network is used to distinguish between authentic and artificial materials (Reig-Bolao et al., 2013). Additionally, GANs are employed in game theory dynamics to generate virtually identical material to what occurs in reality (Reig-Bolao et al., 2013). The issue with this invention is that anyone may abuse it to make phony commercials or news (Reig-Bolao et al., 2013). Alternatively, it may be used to make a deceptive film to undermine an individual's personality (Reig-Bolao et al., 2013). According to Tanveer (2021), artificial intelligence (AI) automates marketing operations. Artificial intelligence-based deep learning enables computers to more precisely recognize user behavior and anticipate which groups are most likely to become consumers (Tanveer et al., 2021). Programs may give particular information on which leads are most likely to convert, helping marketers to focus their efforts on the most qualified leads without spending time on less qualified prospects (Tanveer et al., 2021). Additionally, it enables the personalization of items (Tanveer et al., 2021). This involves identifying prospective clients based on buy demographics, geography, and purchase history, among other factors (Tanveer et al., 2021). Additionally, it encompasses monitoring and consumer data associated with the items themselves (Tanveer et al., 2021). For example, Under Armour recently used IBM's Watson to merge their own client data with that of third parties to produce "Record," a tailored health and fitness monitoring app (Tanveer et al., 2021).

As Hermann (2021) points out in his paper, AI enables the tailoring of relevant messaging for clients. Predictive analysis enables businesses to have a better understanding of their customers' preferences and offer suggestions based on that data (Hermann, 2021). Netflix and Amazon both utilize this to propose programs and items (Hermann, 2021). As a marketer, developing a collection of data points that allows one to direct customers to a certain product or service is quite powerful (Hermann, 2021). AI makes it simple for people to solve their problems (Hermann, 2021). Additionally, it is a cost-cutting measure 85 percent of consumer contacts will occur without the intervention of a person (Hermann, 2021).

### **2.1.1 Machine Learning**

Machine learning is a subtype of artificial intelligence that automates the analytical, conceptual model and enables computers to adapt autonomously to new settings. Mahesh (2020) states that machine learning has been used to forecast stock values, but the accuracy has been poor because several variables impact the pricing (Mahesh, 2020). Development is classified into three broad categories within machine learning: "Supervised Learning, Unsupervised Learning, and Reinforcement Learning" (Mahesh, 2020). Each classification focuses on a certain area; however, it was discovered in this study that Reinforcement Learning is the most efficient and productive sort of machine learning for forecasting stock values (Mahesh, 2020).

According to Sharma (2020), supervised learning is a subset of machine learning focused on knowledge production via the examination of labeled data (Sharma et al., 2020). During this procedure, a collection of instances with previously known outcomes is added to the study data (Sharma et al., 2020). As fresh data is collected and analyzed, the learning model utilizes the sample's parameters to make modest adjustments and appropriately classify the information (Sharma et al., 2020). Data that has not yet been processed by the system may be accurately predicted using machine learning (Sharma et al., 2020). This is another type of machine-learning in which the structure of the data is undetermined in advance and is studied and categorized (Sharma et al., 2020). Analysis of this kind allows for the extraction of important or crucial information without the need of referencing output variables (Sharma et al., 2020). It is possible to learn by analyzing unprocessed data in this case, unlike supervised learning (Sharma et al., 2020). According to Sutton & Barto (2018), "reinforcement learning" is a kind of machine learning distinct from earlier models. As part of deep learning, this is a kind of analysis that is done (Sutton & Barto., 2018). One of its main goals is to create performance-improving models from previously processed data (Sutton & Barto, 2018). This learning style benefits most from a structure in which every accomplishment is rewarded (Sutton & Barto., 2018). In this instructional module, a reward is given to students who complete all of the required activities and meet all of the data set's specifications (Sutton & Barto., 2018).

## **2.1.2 Deep Learning**

Schmidhuber (2015) contends in his study that deep learning is practically ubiquitous. For example, deep learning artificial intelligence is used to handle real-time web ads, recognize and tag friends in postings, convert speech to text, drive autonomous automobiles, and translate texts into several languages (Schmidhuber, 2015). Additionally, deep learning AI is applied in unseen locations. Credit card businesses and banks, for example, utilize deep learning to identify fraud, assess loan risk, and forecast bankruptcy (Schmidhuber, 2015). Hospitals also utilize deep learning to identify ailments, diagnose patients, and even cure them (Schmidhuber, 2015). AI technology based on deep learning promotes the use of predefined variables to guarantee lifetime efficiency (Schmidhuber, 2015). When trying to create consistent outcomes, the machines will be able to duplicate the instructions (Schmidhuber, 2015). It is composed of what are known as neurons, which are network learning units (Schmidhuber, 2015). These neurons' responsibilities are to transform input signals into output signals (Schmidhuber, 2015).

Goodfellow (2016) demonstrates in their essay that deep learning as a kind of Artificial Intelligence is effective and has several benefits. Artificial intelligence could automate tasks that would otherwise be demanding for a person (Goodfellow, 2016). Deep learning uses artificial intelligence to sift through massive amounts of data and evaluate it more quickly than humans can (Goodfellow, 2016). Additionally, if artificial intelligence is programmed properly, it decreases the possibility of mistakes (Goodfellow, 2016). Proper coding guarantees that the deep learning and execution processes run at the required speed, precision, and accuracy (Goodfellow, 2016). Another significant benefit of deep learning, according to Liu (2015), is cost reduction.

When dealing with big amounts of data or operations, human labor is somewhat costly (Liu et al., 2015). Unlike humans, artificial intelligence robots do not need pauses, sleep, or relaxation; they can operate continuously for extended periods (Liu et al., 2015). Machines equipped with deep learning artificial intelligence may be trained to execute the same work again without being distracted, bored, or tired (Liu et al., 2015). The robots make no protests about being overworked or overburdened. Artificial intelligence powered by deep learning has revolutionized the technology sector (Liu et al., 2015). Deep learning entails the use of predefined information encoded in the computer to accomplish a certain task (Liu et al., 2015). Sustaining deep learning, artificial intelligence will need more study and applications in various technology developments (Liu et al., 2015). Education may also aid in the maintenance of deep

learning. Education would equip the workforce to operate effectively with AI (Liu et al., 2015). Deep learning, or artificial intelligence, needs education for learners to combine their acquired knowledge with artificial intelligence (Liu et al., 2015). The application of deep intelligence requires abilities beyond the standard ICT competencies taught in schools to educate students to be computer literate (Liu et al., 2015). Through computers and software, deep learning enables learners to discover and solve complicated issues (Liu et al., 2015).

## **2.2 Digital marketing**

The terminology "digital marketing" refers to the practice of promoting products and services using digital platforms like internet web pages, mobile devices, social networking sites, search engines, and other related platforms which are all used in the marketing of products and services. When the internet was first introduced in the 1990s, digital marketing quickly gained popularity. (Baron, 2022). Digital marketing concepts are comparable to traditional marketing concepts, and it is generally seen as a fresh way for companies to engage with consumers and better understand their behavior and also traditional and digital marketing tactics are frequently used in tandem by businesses in their marketing plans and campaigns. (Baron, 2022).

Companies have traditionally relied on print, television, and radio advertising to promote their products. Despite the fact that these choices are still available today, the emergence of the internet has resulted in a shift in the way businesses communicate with their customers. That's where digital marketing comes in, because it combines marketing with consumer feedback, resulting in a two-way engagement between the business and the client (Baron, 2022).

New forms of value are created in new digital settings as a result of the flexible process made possible by digital technologies. Organizations supported by digital technology develop the core competencies necessary to collaboratively produce meaningful value for their customers and for themselves, as well as for others.

Processes made possible by digital technologies add value to the business by providing new customer experiences and facilitating interactions among customers. It is digital marketing itself that is made possible by a succession of adaptive digital touchpoints that encompass the marketing activity as well as the institutions, processes, and customers. As more offline customers migrate to digital technologies and "younger, technologically oriented customers enter the lines of buyers," the interactions are increasing by more than 20% every year, which is

substantial (Bughin, 2015). It is necessary to map the current state of digital marketing scientific investigation and correlate it to the business world in order to determine the critical role played by artificial intelligence in digital marketing research and strategy. Then we will be able to determine to what extent digital marketing in research is lagging behind the advancements in the corporate industry.

## **2.3 Digital Marketing Tools**

### **2.3.1 Content Marketing**

Creating and distributing suitable, beneficial brand-related information to existing or prospective customers, as well as to other target groups via online media or print media, is referred to as "content marketing" (Hollebeek & Macky, 2019).

In contrast to conventional advertising, which is typically defined as a form of communication intended to convince or even force target audiences to take some action, either now or in the future (Dahlen & Rosengren, 2016), content marketing concentrates on adding utility to target audiences' lives, for example, by teaching them, assisting them in solving issues, delighting them, or assisting them in making informed decisions (Wall & Spinuzzi, 2018) (Vollero & palazzo, 2018) . The social exchange theoretical concept states that a company's distribution of suitable content to a target audience will result in the group rewarding the organization in exchange for favorable attitudes. With over half of content receivers dismissing unsuitable content, marketers must be creative and innovative in their content creation if they hope to be successful in content marketing. An IBM study found that just above 70% of companies provide their customers with a wide range of unbiased and useful information (Synovec, 2019).

Fortunately, we have statistics to help us out in this situation. Personalization and appreciation of content are made possible through data (Smilansky, 2018). for instance, using data to suggest products and services based on past purchases. Data accumulated over time can now be used to make content suggestions (Sterne, 2017). Every individual has their own unique set of tastes and interests. E-mails or social media ads tailored to the preferences of each user can be created using this data. It is thus possible to attain marketing goals using intelligent content formulation enabled by AI (Ellis-Chadwick & Chaffey, 2019). AI-aided content generation is more powerful than it might sound. It consumes a lot of effort and money to produce purposeful information for

a wide range of products and services. Alibaba is one of the corporations that has developed an AI tool that can create millions of lines of text and can write 20,000 lines of ad copy in a matter of seconds. Thus, their shops may develop content without the need for human intervention (Mark J, 2019). The tool, developed as part of Alibaba's digital marketing unit Alimama, aims to alleviate retailers' burdensome and time-consuming task of writing copy for product listings by removing "millions" of actual human sentences from the company's e-commerce platforms and interpreting them utilizing deep learning models and natural language processing (NLP) technologies.

### **2.3.2 Search Engine Optimization**

Search Engine Optimization (SEO) is a term that refers to processes that enhance organic web traffic to a website, blog, or infographic in order for it to designate and appear as first choices when a search is done online. (Alexander L, 2022).

The significance of ranking high in the search engine page for a certain phrase cannot be overstated, as people typically read results only on the first three pages (Pohjanen, 2019) or on the first page of results (Kritzinger and Weideman, 2013).

SEO may also be defined as a task of creating a website that ranks successfully for keyword phrases in organic search results while also boosting the quantity and quality of web traffic to a particular site (Iskandar and Komara, 2018).

A website's user-friendliness, unique content, and a well-described meta explanation are all recommended by Sharma and Verma (2020) in order to get better search engine rankings and generate more relevant visitors. Furthermore, the more extensive the website's material, the more time the user devotes to reading it, which in turn increases the amount of time users spend on the page. Because of this phenomenon, the website has a greater chance of appearing higher in search results (Kaukoranta, 2015).

### **2.3.3 Social media marketing**

In a marketing setting, social media platforms are defined as places where individuals connect and share information, their thoughts and opinions (Kaplan and Haenlein, 2010). Social media, by virtue of its unique characteristics of being as "powerful, networked, equitable, and engaging organisms" (Chen et al., 2013), have resulted in three key transformations in the business.

To begin, social media enables businesses and customers to communicate in ways that were previously impossible. This connection is facilitated by a variety of platforms, including social networking sites (for example, Instagram, Snapchat, Tiktok and Meta), messaging sites (for example, Twitter), and creative communities (for example, YouTube), all of which enable social media networks to form around common interests and ideals (Kaplan and Haenlein 2010). In this context, "social connection" has been referred to as "social bonds" (Quinton and Wilson 2016), with the degree and duration of these relationships determining their strength or weakness (Granovetter, 1973). Previous research has established that strong ties is a significant predictor of consumer recommendation behaviors (Verlegh et al., 2013).

Secondly, social media has changed the way businesses and customers communicate and influence one another. Social contact entails "activities" that impact the decisions and consumer behaviors of others, whether through dialogue or passive observation (Wang et al., 2011). Such social contacts were dubbed "word-of-mouth (WOM) effects" by (Manchada et al, 2010). According to Muller and Peres (2019), human connections rely heavily on social networks and give enterprises quantitative value. Experts have extensively acknowledged the relevance of social impact in influencing consumer choices in media research, and recent studies have demonstrated that people's relationship patterns and the degree of social links might indicate the level of social relations (Zubcseck et al., 2011). Thirdly, the availability of social media data has made it incredibly easier for businesses to manage consumer connections more effectively and to make more informed business decisions (Bolton et al., 2010). Social media data is commonly described in terms of the 3Vs (volume, variation, and velocity), which relate to the massive amount of data, the many sources of data, and the expanded real-time data (Bowman et al., 2017). With the aid of recent information technologies, a massive amount of social media data can now be retrieved and usefully utilized from a variety of sources on the web and in a variety of formats as text, images and video (Moe and Schweidel, 2017). Thus, this type of data can be a valuable source for customer analysis, market research, and developing new innovative ideas, while extracting and creating new strategic resources capable of improving marketing outcomes. Email marketing is one of the earliest forms of digital marketing, it remains one of the most lucrative. According to a Litmus survey conducted in 2019, a dollar invested on email marketing generates nearly forty dollars in return on investment (Ward, 2019).

This demonstrates that email marketing's primary purpose is to sell a product via a pitch. When an email is sent to deliver useful information, it is frequently sent with the intention of selling a product or a service. (Ryan, 2017).

According to Sterne (2017), emails are written for a variety of purposes, including sending a gratitude note to a new customer, developing a relationship, or advertising. The AI technologies enable an examination of which types of emails perform the best in terms of generating the biggest value for a business. Zeta Global (2019) provides an artificial intelligence (AI) solution that enables marketers to spend less time on email content creation and more effort on developing continuous relationships with clients. The company leverages predictive intelligence to gain a more personal understanding of each customer, enabling marketers to choose the optimal timing, develop segmentation, and determine the merit of content for each of the clients. Chowhound took advantage of this chance to strengthen its business and saw a nearly 30% increase in email open rates and a nearly 150% increase in email hits (Sterne, 2017).

(Sterne, 2017) asserts that AI is capable of determining the optimal timing for email addresses, the days emails are more likely to be read, suggesting relevant content, design, offering the favored imagery of a customer, the colors a client prefers, and so forth. According to Sterne, the majority of the jobs stated might be accomplished by marketing professionals. Nonetheless, the time spent on these duties would be in vain. As a result, the AI is a great bargain. Additionally, AI may assist marketers in increasing sales by customizing email promos.

Algorithms may detect trends indicating which offers encourage a business's clients to make purchases (Brenner, 2019). For some clients, the prospect of free delivery is sufficient to motivate them to acquire a product or service; for others, it may be a 20% deal on a certain furniture or device.

## **2.4 AI-driven marketing**

Mari (2019) argues that marketing is one of the most AI-enabled businesses. An essential part of marketing's job is to find out what customers want, match those requirements to the right goods and services, and then get them to purchase (Mari, 2019). An AI-powered marketing and business strategy has the ability to drastically enhance sales (Mari, 2019) and in a 2018 McKinsey study of over 400 use cases applying sophisticated AI techniques, marketing was found to have the greatest promise for AI (Mari, 2019). AI-driven marketing, according to

Huang and Rust (2021), leverages technology to improve the consumer experience and journey. Customers' sentiment, transactions, trips, and more are tracked by AI and used to build machine learning algorithms that predict customer behavior (Huang & Rust, 2021). Customer engagement and retention strategies will be developed using personalized information, suggestions, and communications (Huang & Rust, 2021). Saving money, increasing income, and enhancing customer satisfaction are all goals that AI aspires to achieve (Huang & Rust, 2021). Artificial Intelligence (AI) can do a broad variety of activities, despite its inability to show compassion or empathy (Huang & Rust, 2021). Reduces digital marketing errors by streamlining, optimizing, and providing data-driven reporting on marketing campaigns (Huang & Rust, 2021). The customized email marketing that many of us are acquainted with is essentially the work of AI (Huang & Rust, 2021).

A chatbot is an excellent example of an AI application that simulates human intelligence by interpreting and responding to consumers' queries and inquiries, as well as completing purchases online (Chaffey & Ellis-Chadwick, 2019). At the moment, chatbots are gaining popularity. Numerous businesses use bots into their operations using Meta Messenger or their own websites (Polson & Scott, 2018). Typically, a chatbot is introduced to increase the efficiency of a customer support department; however, data obtained via Meta Messenger can help an organization enhance its digital marketing effectiveness through its data analysis capabilities. (Chaffey & Ellis-Chadwick, 2019).

## **2.5 Marketing Automation Theory**

The term ‘marketing automation’ was first developed by John D.C. Little (Little, 2001), which he explains as a digital marketing system that assists in making marketing decisions. Little in a Symposium described marketing decisions that can be made by answering certain questions that are critical in marketing. He proposed evaluating a customer’s digital footprints and applying relevant algorithms to generate meaningful management consequences for the entire purchase funnel. Through the personalization of marketing activities, such automated marketing decision assistance offers increased productivity, better decision-making, higher returns on marketing

spending, and more consumer happiness and loyalty (Bucklin et al., 2002). Marketers are able to get help in the decisions they make which improves marketing abilities and reduces costs.

Marketing automation was started due to the various issues that the marketing department faced at the time. The aim of the automated marketing strategy was to effectively address customer desires and ensure that customer satisfaction is achieved through technical means. However, there was large information regarding different customer tastes and preferences that was difficult to sort and manage, which would have led to the online system to break down. Little (2001). Initially, marketing automation was designed to generically address consumer concerns by providing recommended results rather than the personalized feedback that is done today in terms of pricing, user journey and promotion (Hinz et al., 2011). Marketing automation has evolved to address personal desires and ensure customers' tastes are being responded to in a particular way.

According to Little (2001), there are five layers of system operation: data inputs, real-time decision rules, decision rule updates, site management feedback, and strategy choice. Little proposes deploying real-time decision rules that are calibrated using previous data and updated through adaptive experimentation (Little 2001; Bucklin et al., 2002). The established systems should provide feedback to site management as well as guidance for retailers to alter their strategy. Heimbach et al., (2015) provides a relevant example where a customer may buy a movie ticket for an actor of their choice online. This information is captured by marketing companies so that when a new movie with a similar theme or having the same actor, the advertisement would pop up on the customer's feed to inform them that something they would be willing to purchase is available.

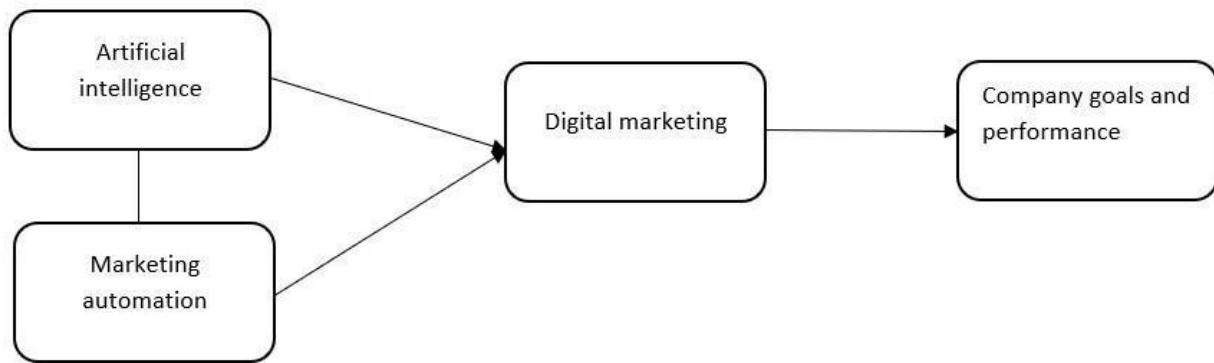
Marketing automation is a technical invention that has greatly improved the marketing sector. Automated means of learning customer requirements and being able to provide personalized information that will aid in their demand decisions reduces the workload required to find such information. Automation also easily connects suppliers to buyers as customers are made aware of possible places to purchase their products and sellers will find their intended target market.

When relating this concept to the developed AI with all its previously mentioned advanced sectors it can only be expected to increase the efficiency of digital marketing processes while improving the overall consumer experience by delivering extra relatable content based on their

preferences and improving companies' performance. Observing such improvements in the field would provide tangible evidence that will allow for a better studying of how AI is impacting digital marketing.

## 2.6 Conceptual Model

Figure 1: Conceptual model



The conceptual model above shows the relationship between AI and marketing automation, digital marketing and company goals and performance. The model depicts a relationship between artificial intelligence, market automation and digital marketing which further affects company goals and performance. It is expected that artificial intelligence will affect digital marketing positively. Furthermore, marketing automation is expected to have a significant impact on digital marketing. This suggests that incorporating AI and marketing automation features into the marketing system will improve digital marketing for most companies. The improvement in digital marketing due to incorporation of the AI technology and marketing automation is expected to impact company goals and performance positively (Synovec, 2019). The conceptual model, as explained in Figure 1 provides the basis for this study in defining a relationship between technology and marketing outcomes.

### **3.0 Methodology**

*The qualitative nature of this thesis is described in the following chapter, as well as the methodological design. The study also goes into detail about data collection, reliability, analysis techniques, limitations, and ethical concerns. The data collection is based on structured interview questions, with template analysis performed in advance.*

### **3.1 Approach**

The approach of this paper relied on a qualitative method using one to one semi-structured interview (Saunders et al., 2019). Qualitative approach puts emphasis on what is said rather than focusing on statistics and while in a qualitative approach usually the number of answers is usually lower, it provides deeper responses with better insights regarding a specific subject (Bryman & Bell, 2015). As a result, it is simpler to assimilate new experiences and comprehend more detailed information. Thus, data collection will be through using qualitative methods for the purpose of writing this paper. In order to reach a satisfying answer regarding the research question, an analysis will take place relating the theories mentioned in the paper and the data collected from interviews (Bryman & Bell, 2015). The analysis of this paper will be done using thematic analysis because it is the most coherent method when it comes to analyzing qualitative data (Saunders et al., 2019).

### **3.2 Data collection**

This thesis builds up inductively, as stated in the research approach. The proposed study was initially approached with an inquisitive mindset. Inductive and qualitative are two terms used to describe exploratory studies (Stebbins, 2001). Because of the limited information on AI and its application in digital marketing, this was essential. When the author's understanding of specific concepts does not include important information in the field under investigation, the author must conduct extensive research on the subject (Breyman & Bell, 2005).

The study investigates the effects of AI on digital marketing by conducting qualitative interviews with two different categories of experts. The first group specializes in artificial intelligence, while the second specializes in marketing. Because of the nature of the subject, which explores the knowledge value of one discipline absorbed into another, the thesis follows this method. To

that end, the study interviews three AI experts to determine what type of knowledge can increase a marketer's automation capabilities, what areas can benefit from AI and how it's used in marketing operations. The participating experts are chosen for their expertise of AI, existing automation, and capacity to deliver AI insights that marketers should be aware of. This will make it easier to comprehend the existing automation capabilities and technology. These specialists were picked based on expert experience and understanding in the area of artificial intelligence. The marketing group is investigated to determine how they are using AI and their views on the necessary knowledge for standard use in automation.

### **3.3 Primary data**

Interviewers are able to grasp a more detailed understanding using qualitative interviews rather than conducting a survey (Bryman & Bell, 2015). Furthermore, being chosen for an interview feels more relevant than answering a quick survey (Saunders et al., 2019). The data used for this research was mainly primary data and was gathered through conducting semi-structured interviews (Bryman & Bell, 2015). The authors are able to have prepared topics for discussion when conducting semi-structured interviews. Because the interview is based on structured questions, the informant has some flexibility in responding (Bryman & Bell, 2015).

Interviews provide primary data to the thesis authors, allowing them to hear the informants' true opinions and beliefs (Saunders et al., 2019). Using this method will provide the authors with detailed information to determine the impact of AI on digital marketing. The interviews were scheduled to include a total of six participants: three AI experts and three marketing professionals. The AI experts were chosen on the criteria that they employed AI technology and solutions to run marketing. The marketing professionals were linkedin friends of one of the authors and were chosen because they shared digital marketing discussions prior and were willing to be interviewed for the thesis. It was suggested that the semi-structured interviews be conducted with one participant at a time and the authors were keen to use as much primary data and information to get insights from first-hand experiences by interviewing specialists in the AI technology and digital marketing fields. Saunders et al., (2016) recommended taking audio recordings or taking notes during semi-structured interviews. It was agreed that the interviews should be audio-recorded to guarantee that all information needed from the participants is kept,

not lost, and that no key components are missed. Nonetheless, the limitations of connecting with diverse people on a daily basis have had an impact on people's physical and emotional health as a result of the Covid-19 pandemic (Gualano, 2020).

As a result, it was agreed that the interviews would be done digitally rather than in person. Microsoft Teams and Zoom were selected as an online learning platform where the participants could participate in the discussions easily and without concern for their health. The authors were all present at each interview to assure the continuity of the dialogue and to supplement one another's notes or views on the interviews, if necessary. The interview sessions were different from one another based on what was best for each participant. Rescheduling the meeting was sometimes essential in order for everyone to participate at a convenient time but all the interviews were conducted in the afternoon CEST 1400. Furthermore, the length of the interviews varied from one participant to the next depending on how much each individual was willing to share and discuss further. According to Bryman and Bell (2015), the purpose of an interview is to ask questions in order to operationalize and examine how concepts are utilized and related to the informants, hence this paper employed interview questions that covered the theories.

### **3.4 Secondary data**

Secondary data, according to Ghauri and Grnhaug (2010), is information that has already been obtained and summarized for the reader. Census and official reports, for example, are frequently included in this type of data. When doing a more in-depth investigation, secondary data is frequently employed as a supplement to primary data. The authors selected to review current literature in the chosen area in order to make this thesis relevant. The authors define a collection of literature as data that may be carried across time and place and examined for reasons other than their original purpose, while also enduring tangible (which includes digital) proof. Existing literature on earlier knowledge in the field of the subject is one example of such data. The existing data was gathered using a variety of databases available through the Mälardalen University library. Web of Science, ABI Inform, ProQuest, and Emerald Insight are examples of such databases. The literature and journals were peer-reviewed to the greatest extent possible.

### **3.5 Data Analysis**

This thesis is organized around a thematic framework analytical approach and the primary benefits of employing thematic analysis that it is appropriate for novice researchers who are unfamiliar with qualitative analysis and therefore it provides flexibility when targeting big data sets (Virginia Braun & Victoria Clarke, 2006). According to Chris Nosko and Thomas Blake, (2009) the steps recommended for conducting a framework analysis is first to familiarize with the data gathering transcripts. In this stage, the researcher should now comprehend, make observations, and begin identifying recurring patterns. Secondly, using the data set as a starting point, develop a thematic framework. While these themes may come from previously discussed topics, at this stage of the investigation, the data can drive the themes. Thirdly, Indexing is done. Which is the process of associating segments of the data set with the topics. Then the Charting of the data points follow according to their contextual values in terms of categories for example. Lastly, mapping and interoperations are the concluding stages of analysis, which depend on the conceptualization of the data that will direct the investigation.

In advance, template analysis is a technique for delivering framework analysis. This paper uses template analysis to organize the results of the interviews. Template analysis is a subset of framework analysis that stresses hierarchical coding and strikes a compromise between high-level structural analysis and adaptation to the research needs (Nigel et al., 2015).

Additionally, Saunders et al., (2016) state that template analysis is performed using data structures that are available prior to codifying all interview data results. This has implications for categorization on a thematic level. For instance, the research questions can serve as a framework for categorisation. The research questions that were prepared prior to codifying the results of the interviews direct the interview. Thus, the research questions influence the topic categorization of this template. The themes are chosen in accordance with the key values expressed in each question. Subcategories were created in advance as a result of repeated trends in the data collection that highlights specific outcomes. Each question's collected data is examined for its connection to the theme and the researchers' role is to emphasize and present the most crucial areas that are consistent across participants. Additionally, after emphasizing the most significant contributions to each theme, groups and subcategories are created based primarily on the importance of hierarchy. Finally, the researchers' role is to continuously examine, evaluate and

enhance the structural build of this template until it is accurate, reliable and consistent with the research findings. Things can be classified and arranged hierarchically using this analysis technique (Saunders et al., 2016). This contributes to the credibility of qualitative analysis. Additionally, the qualitative aspect of this research suggests that it will evaluate participants' data repetitively in order to establish associated trends (Creswell, 2013).

Finally, this paper applies a knowledge management principle to the data in order to isolate the most trusted and credible pieces of information. From the perspective of knowledge management, the primary difference has indeed been noted between personalization and codification. Personalization, according to Hislop et al., (2018), is a systematic approach to sharing knowledge among peers that involves discussing their experiences and proactively imparting tacit information. While codification establishes easily accessible knowledge, reusable and documentable (Hislop et al., 2018). The major contribution of this is to demonstrate that, in addition to the codifiable knowledge of the contributors, the authors' critical appraisal emphasizes the value of empiricism gathered throughout the interviews.

### **3.6 Ethical Considerations**

This thesis demonstrates a high level of awareness of its ethical obligations to the participants and this paper adheres to the ethical norms outlined by Saunders et al., (2016).

Ethical considerations arise during the planning and design stages of the research and are unique to each study. Additionally, while there is no one-size-fits-all "formula" for ethical conduct, research should strive for ethical concepts and practices. Several of these principles include being impartial, truthful, promoting integrity, being courteous, and analyzing conduct in order to avoid causing harm to the participants. Moreover, the researcher should maintain confidentiality by honoring the participants' privacy, educating them about the voluntary nature of the study, and giving informed consent. Lastly, ethical issues for university research and thesis work should take into account the university's own values. Sanders et al., (2016) assert that the research should follow the guidelines outlined in the university's ethical code.

In this instance, the supervisor was consulted regarding the study methodology. To guarantee that all these principles were followed, the procedures taken included, approaching participants a

month prior to the event through email in a very subtle and respectful manner and giving them the possibility to select their own dates, which made participation more convenient. The researcher and the participants have both signed the agreement that protects their confidentiality, privacy and provides participants with the option of being included or excluded from the research. Throughout the interviews, the researchers maintained their professionalism and objectivity by keeping the topic relevant to the research issues and participants were welcomed before the interviews and also informed that they had the right and option to withdraw at any time. The researchers made no changes to the results and maintained the collected data truthful and compatible with the participants' perspectives. The researchers expressed appreciation for their cooperation and reassured them that they will take the appropriate steps to safeguard their information and data.

### **3.7 Validity and Reliability**

This thesis examines a list of conditions proposed by Creswell and Poth (2013). Firstly, the approach is authentic when the findings accurately reflect the meaning of the participant. Secondly, the legitimacy of the study is ensured once all participants and the points expressed are taken into account. Third, all parts of study are evaluated critically. Lastly, the researcher's credibility is seen to be based on introspection. The following measures have been taken to address these concepts.

- The researchers used terms as the subjects in all statements, without changing meaning.
- The study analysis took into account all interview data in the codification process.
- The study preserves a coherent line of argument by using pertinent information.
- The author of this research examined the paper's validity through repeated proofreading and considered the comments of other authors and the supervisor.

## **4.0 Findings.**

*As stated in the section on methods of research, this thesis collected data from a total of six individuals. Participants can be classified into two groups based on their profession. Each group contains three participants. Two distinct segments of the data are presented in advance. In addition, the interview questions have been separated and categorized according to their relevance to the research objective.*

### **4.1 Collected data**

This chapter gives an outline of the data gathering that followed a framework analysis. The following is a template analysis of the two participant groups. As stated in data analysis, template analysis is an expansion of framework analysis. The analysis is the result of the following processes listed below.

The author should first become familiarized with the findings. Next, the author must choose the thematic framework. In this instance, the themes are determined by the interview questions. As was described in data analysis, the researcher should emphasize the essential elements that steer the investigation. Thus, the theme is generated by the primary subject of the question.

Thirdly, identifying and indexing the data values that relate to these themes. This suggests that the participants will answer. The fourth step is to organize the data into different categories and subcategories according to its worth and significance. In advance, repeatedly retrieving the template for the most precise classification. Finally, initiate mapping and inter-operations to direct the investigation. This is accomplished by interpreting and understanding the information in a descriptive manner that directs the results.

This section offers a more cooperative description of the research data results.

#### **4.1.1 Template analysis of the interview with marketers**

1. Marketers' views on artificial intelligence and digital marketing.
  - 1.1. Background in marketing.
    - 1.1.1. Marketing specialization.
      - 1.1.1.1. Degree in marketing.

1.1.2. Experience with digital marketing and automation.

1.1.2.1. Automation in social media marketing.

1.1.2.2. Work experience and theoretical knowledge.

1.2. Knowledge and years of experience.

1.2.1. Good knowledge and many years of experience.

1.2.2. Knowledge through work experience.

1.3. The impact of artificial intelligence on marketers responsibilities.

1.3.1. Reaching people in a different way.

1.3.2. Meeting consumer needs using data.

1.3.3. Automation for precise targeting.

1.4. Decisions that could be aided by artificial intelligence and its development.

1.4.1. Targeting and marketing campaigns.

1.4.1.1. Mapping out the market and making future strategies.

1.4.1.2. Strategizing future campaigns.

1.4.2. AI technologies being implemented.

1.4.2.1. Google AI, machine learning products, Facebook and HubSpot.

1.4.2.2 AI platform integration.

1.4.3. Reaching marketing goals with artificial intelligence.

1.4.3.1. Tracking sales timeframe.

1.4.3.2. Value proposition.

1.4.3.3. Areas to improve can be achieved from data.

1.4.4. Skills for implementing marketing automation.

1.4.4.1. Theoretical background and technical ability.

1.4.4.2. Tech savviness and learning skills online.

1.4.4.3. Flexibility and ability to integrate different types of AI and other tools.

#### **4.1.2 Interview template analysis with AI experts.**

2. Experts' views on artificial intelligence and digital marketing.

2.1. Background in programming and project management.

2.1.1. Background in electrical engineering and marketing.

2.1.1.1. Degree in Engineering and Project management.

2.1.2. Artificial intelligence perspectives and viewpoints.

2.1.2.1. AI is like a big brain.

2.1.2.2. Performing human work more efficiently.

2.1.3. Digital marketing and artificial intelligence relationship.

2.1.3.1. AI in Inbound marketing creating personalized information and experiences.

2.1.3.2. Using AI in content marketing and target marketing ads.

2.2. Skills for marketing automation.

2.2.1. Short courses to learn AI.

2.2.1.1 Platforms for automation. Eg HubSpot and Facebook.

2.3. Experience related to AI, SEO and Machine Learning

2.3.1. Experience through working.

2.3.2. Learning coding.

2.3.3. Experience with machine learning, content marketing and social media marketing.

2.3.4. Tailoring content for target advertisement.

2.3.5. AI in inbound marketing.

2.4. Aspects of digital marketing benefiting from AI and ML.

2.4.1 Search engine optimization

2.4.2. Advertising and content marketing.

2.4.3 Using keywords for marketing analytics

- 2.5. Long-term AI benefit for marketing firms, consumers, and community.
  - 2.5.1. AI is included in the strategy of businesses to remain competitive.
  - 2.5.2. Understand how advertisements connect to data collection.
  - 2.5.3. Right rules should be formulated to control data gathered through using AI.

## **5.0 Analysis and Discussion**

*This chapter provides a concise overview of the interview outcomes. As stated in the section on research techniques, the qualitative nature of this study necessitates an inquiry that analyzes participant data in a repetitive manner to identify corresponding patterns (Creswell & Creswell, 2018). The headers are based on such similarity in the responses of the participants. By employing the same terms as the participants, the presented results exclude the possibility of biased information. The thesis has now performed the essential processes to find the proper data values for this research, and it will now begin mapping and comparing these values.*

The study that was done involved assessing how conversant various respondents were to marketing automation and to AI technology. This thesis gathered data from a total of six people, as described in the methodology section. Based on their profession, participants were divided into two categories, with each category having three participants. Two data segments were supplied ahead of time and the interview guides were separated and classified according to their significance to the research objectives.

The general finding was that AI technology improves marketing strategies significantly, by processing customer data efficiently and providing customer preferences in a short time. Marketers aim to gain competency in both marketing analysis and actual artificial intelligence applications throughout time (Wedel & Kannan, 2016). Consequently, marketers who understand the underlying AI technology and techniques that apply to the marketing tool in use are far more likely to run successful campaigns. Businesses will benefit from AI by enhancing their understanding of the underlying relationships among datasets and assisting them in establishing models to handle the dynamic changes in digital commerce. Additionally, with the help of AI and machine-learning technologies, decision models may foresee an event that has not yet occurred with higher precision and depth, enabling one-to-one engagement, and delivering economic value to the business.

## **5.1 Viewpoints of AI in marketing.**

The participants' occupation and background are discussed in the first section of the interview. Participants were also asked to characterize AI in marketing and share their thoughts and ideas on the topic. The interview guides were created in such a way that AI implementation in digital marketing may be automated.

### **AI experts:**

The data collected reveals a degree of flexibility in their speciality determinants in AI and their industry experience. However, when it comes to their views of AI's connection to marketing, all participants have identical responses. They all think AI's present state is important for automating marketing efforts. In addition, this group argues that AI systems are designed in such a way that marketers are not obliged to understand the fundamental architecture. While this may be beneficial and allow a better grasp, they believe that marketers must be aware of the tool's genuine limitations. This means that they are required to understand the tool's strengths and drawbacks. They will be able to use such solutions without fear of bias. In general, AI experts have modest assumptions of marketers' practical and technological infrastructure knowledge. They do, however, believe that marketers have a decent grasp of marketing automation. Although they believe that expanding a marketer's knowledge of AI architecture is beneficial, the experts also believe that the most important thing for a marketer to learn is the behavior of the system in operation, as well as the impact of outputs and inputs.

The respondents have gained skills in other subjects but opted to understand artificial intelligence to boost their marketing techniques. According to the respondents, AI is like a brain, which concludes as human beings, but in a faster, more efficient way. It is the ability of computers or machines to perform human work but more efficiently. On marketing the AI experts suggested that the technology sufficiently improves the marketing system.

The participants are of the view that marketing managers ought to learn AI skills to enhance their marketing strategies. The respondents suggest that marketers take short courses to learn AI, or 12 day python coding courses that enhance AI skills for better marketing strategies. Additionally, marketers can use HubSpot and other platforms for automation. Marketing automation is a technological advancement that has transformed the marketing industry. The labor necessary to find such information is reduced by automated methods of learning consumer requirements and being able to deliver customized information that will aid in their demand decisions. Customers are made aware of possible venues to acquire their items, and vendors are able to identify their intended target market, thanks to automation. When this concept is applied to the developed AI and all of its previously mentioned advanced sectors, it can only be expected to improve the efficiency of digital marketing processes while also improving the overall consumer experience by providing more relevant content based on their preferences and improving company performance. Seeing such advancements in the area will provide concrete proof that will help researchers better understand how AI is affecting digital marketing.

### **Marketers:**

Marketers displayed a good understanding of artificial intelligence and its use in digital marketing. One of the participants, for example, defined AI as a machine that uses judgments and acts on its own. One respondent described AI as a machine that is always evolving toward human intelligence. Basically, turning what's in your head onto a computer. So, with AI, we may facilitate the same kinds of thought patterns, conversations, assumptions, and actual functionality that we have as human beings. The participants stated that they had little experience with the AI technology but carried digital marketing through platforms such as Amazon that used automation. One participant said that they use automation with the help of AI that assists in social media marketing by assisting clients schedule their workforce. The general view was that there was some knowledge of artificial intelligence, but it was not extensive. These findings are consistent with the 2017 scenario where just 17% of 1,500 top corporate leaders in the United States stated that they were acquainted with the AI technology when asked about it in an interview (Delloite, 2017). Consequently, many companies fail at marketing improvement due to the lack of acceptance for enhanced digital marketing methods. 41% of global marketers, in a survey that was conducted in late 2020, claimed increased revenue growth and improved

performance as a result of incorporating AI into their marketing efforts. Another 38% related the use of AI in marketing to the creation of personalized customer experiences (Gutman, 2021). It is clear that marketing is now taking the AI route for improved performance. However, the response from the marketers interviewed in this study shows that more needs to be done in terms of awareness creation and training of marketers to better understand how to use the AI technology in their marketing strategies.

## **5.2 The impact of AI on marketers' responsibilities and its development.**

The interview covers the use of AI in marketing as well as the responsibility that marketers should bear. It also discusses the necessity of innovation and social awareness in the automation process. The second set of questions asked the marketers' views on incorporating artificial intelligence into the marketing business. One marketing participant said that "It's going to change everything and consume our entire reality in the next 20 to 25 years..." Another participant claimed that artificial intelligence impacts their work positively by making more tailored products and services to the customers. AI technology is an improvement to digital marketing. Studies have shown that an array of benefits arise from this technology including improved communication systems, better understanding of customer preferences and faster delivery of products. Additionally, results, including those from this study, have shown that quick feedback is obtained by the help of artificial intelligence which helps marketers to improve their products and ensure that customer satisfaction is achieved.

When asked to state their vision for the future of AI, the participants showed excitement, claiming that the technology will improve marketing strategies in significant ways. Future marketing campaigns and strategies could use the data received from previous campaigns and AI technology, to map out the market and understand where people are and what kind of information actually gets the most hits. According to one respondent, AI is going to change everything. Furthermore, AI will facilitate connecting with customers on a personal level and understanding emotions in the future. The future anticipation is for AI to provide marketers with information on the emotional attitude of customers on a product. This will give an in-depth knowledge of customer preferences from a psychological and emotional point of view which will provide marketers with more fodder for their marketing strategies. The aim of marketing is to

achieve customer satisfaction, by providing exactly what the customer needs, and information about the customer is the main requirement for this achievement. The AI technology is expected to sufficiently meet this requirement so that marketers will have an easy time.

According to the marketers in the interviews, their companies have incorporated AI technology into their marketing systems which has significantly improved operations. Most AI technology that has been used in their companies, according to this group, include Google AI, Machine Learning, Python, AI Integration and HubSpot.

The respondents assert that AI technology has made marketing easier in their companies, which is the expected result. Marketing goals have been achieved to some extent, according to the respondents. One marketer claimed: “We’ve always had AI in our marketing from day one, so it’s been efficient, but the more that we implement new ways, the better it gets because it learns from the data. We have successful marketing to begin with because our clients understood our value proposition...” (Marketing Respondent)

Marketers today are required to be tech savvy and learn the modern digital way of marketing to implement the best practices in marketing automation and AI is considered a way to facilitate the thought patterns of human beings in technology.

### **5.3 Value of AI in marketing.**

The marketing interview participants assert that the AI has helped save time and facilitated learning from processed data, thus providing the potential to grow. Modern marketing necessitates a thorough understanding of clients' desires and interests, as well as the ability to act quickly and effectively on that information. The majority of organizations who do not use AI in their marketing are unable to make data-driven decisions in real time. (Camilleri, 2017).

Aside from task automation, the most significant advantage of AI is the relevance that marketers can provide to their clients. Consumers are drowning in a sea of information and options. Personalization collects a large quantity of data, allowing businesses to better understand consumer behavior and interests across numerous platforms and touchpoints, and thus better match customer interests with appropriate content and enhance sales (Dwivedi Y. K, 2020).

They are getting increasingly demanding and less patient with brands especially when customers are involved throughout their ecommerce experience, from awareness to investigation to evaluation to purchase, review, and consumption. Personalization, on the other hand, means something different to each person, and it should be built on a solid design foundation and a simple customer experience across all the seller's interconnections, starting with a one-to-many approach and progressing to a one-to-one experience based on known information about an individual (Elizabeth, A. & Lukas, E., 2020). This huge task is made possible using AI technology. Therefore, marketers who lack artificial intelligence in their strategy are unable to integrate huge amounts of customer data in a short period of time. There is a risk of losing customers if they are not pursued at the precise moment when they are receptive to information that will benefit them. They can find anything on the internet, although they don't know what to look for. Consumers can't differentiate between truth and deception; therefore, marketers must be precise and relevant to maximize return on investment and efficiency. Better decision-making leads to greater efficiency, a higher return on investment, and increased revenue. Majority of the marketing participants stated they had AI at different levels. In terms of marketing, automation was being utilized from the target groups and in running marketing campaigns. They were employing data to guide and map out and understand key performance indicators.

#### **5.4 Skills for implementing AI in marketing.**

The findings indicate that technical knowledge of AI is not always needed. Special skills are seen as secondary by the participants. They feel that using a technology does not automatically entail that the machine's design is implicated. Both sides appear to feel that AI systems are designed to be utilized with no prior AI knowledge or understanding. Consequently, this understanding, according to both participating groups, could very well be valuable. Results from the interviews also suggest that experience in artificial intelligence is important. The AI expert's stated that they gained AI skills through constant use of the technology. One respondent began programming from a young age and has improved his skills ever since. Additionally, using the AI technology in their marketing activities, enhances their learning of the technology which builds up proficiency. Therefore, it is not only important to take the course. AI technology depends on practical work that increases knowledge and experience, especially in marketing. The

participants claimed that they have experience in ML and social media marketing which has improved their marketing techniques and outcomes significantly. AI must be included into the strategy of businesses. Consequently, leveraging its advantages and remaining competitive. While it is crucial for consumers to understand the relationship between advertisements and data gathering, it is also essential that they understand how advertisements connect to data collection. The use of AI technology could mean a lot for the future of marketing, but the right rules should be formulated to control data gathered through using AI.

## **6.0 Conclusion**

The marketing sector has been found to be one of the sectors of the economy with the highest potential to improve. It is a viable space for development especially through technology (Fagella, 2019). Marketing techniques have grown and evolved overtime, including modern technology to enhance efficiency. Digital marketing has the potential to have a profound impact on individuals, thanks to technological advancements that enable businesses to produce large quantities of goods and use digital marketing to expand industries' opportunities to advertise and sell products to clients (Ali & Manisha 2020). Furthermore, digital marketing developments are the consequence of combining big data and scientific research on smart apps. Therefore, data on each individual, and their preferences is recorded for easy use during marketing procedures. This study aimed to determine the benefits of digital marketing, particularly, use of artificial intelligence and market automation to improve market outcomes. Additionally, the effect of digital marketing on company performance was considered.

The study found that a positive impact of artificial technology, market automation on digital marketing exists. Like any form of technology, significant improvement was observed in the marketing companies under study and findings aligned to past literature (Rust, 2020; Mari, 2019; Huang & Rust, 2021). Marketers have high standards that AI will continue to develop automation parameters and that automation will gradually take over the majority of marketing procedures. Marketers today are willing to learn how to improve digital marketing to touch on every customer and clearly express their desires.

Nevertheless, marketers also expressed concern and, in some cases, an inability to comprehend the form of control the organization keeps over its efforts when AI automation is deployed to its fullest extent. Marketing managers who have not yet grasped the concept of AI technology may find it costly and unnecessary to include this technology into their marketing systems. Furthermore, some marketers are also convinced that AI cannot comprehend human intelligence. Something that AI experts also agree upon. While they appear to feel that automation is making their work and lives easier and will continue to solve problems, they are concerned about losing control over their campaigns. The assumption that AI expertise may significantly impact the performance of marketers is not satisfied. The essential AI expertise for automation is viewed as

knowing how well the system behaves by grasping the tool's capabilities. For instance, knowing how to remain objective as well as how to utilize AI tools, as opposed to comprehending their basic structure. Therefore, caution is recommended when applying digital marketing methods, not to surrender full autonomy or control of the marketing structure to technology.

Investigating how AI is employed in digital marketing and its effects can offer light on this technology and its current applications. The results of this study will provide more insight on the benefits of AI technology and market automation in the marketing field. With the rise of internet businesses around the world and enterprises promoting their products and services digitally, it's critical to explain how artificial intelligence is being used to market to customers and achieve marketing goals. The results show that AI is the modern way of marketing, making the process of digital marketing efficient. Marketers who use AI in digital marketing have reported great improvements in their marketing strategies. Therefore, it has become critical that marketing managers learn the skills of artificial intelligence to remain competitive and facilitate positive outcomes in their businesses.

The future of marketing relies on the improvement of technology in marketing systems and structures. It is expected that AI technology will completely take over the marketing sector to create customer tailored experiences and catapult marketing to obscenely high levels. Therefore, it should be the desire of every marketing manager to incorporate artificial intelligence and market automation into their systems because the technology is being accepted globally. The AI technology is expected to be an economic boost by increasing GDP through investment returns. The technology is slowly replacing human functions of marketing such as communication, making it easier to perform and improve on other tasks. The mode of virtual assistant ensures that every customer relates to the AI in the most human way possible. While this progress should be monitored closely, it is clear that digital marketing is gradually advancing for the better.

## **6.1 Managerial Implication.**

This study has identified which competencies will become increasingly crucial for marketing professionals to acquire in the future in order for them to be better prepared. To grasp how to

take advantage of AI's capabilities, such as new dimensions and prospects for analyzing vast volumes of data, marketing professionals must have technical skills in order to comprehend and evaluate this data. Furthermore, the formulation of value propositions was discovered to be one of the most important results about the usefulness of the marketing managerial position. Because the customer experience has always had a technical component, as one participant pointed out, the ability to improve the customer experience using technological solutions is quite valuable.

Marketing professionals will have to grasp how Intelligent machines operate and how to use the solutions, thus they will need technical expertise. Furthermore, softer qualities associated with emotional intelligence, such as social awareness and empathy, tend to be essential for marketing professionals. These skills are essential for a variety of reasons, including obtaining valuable customer feedback for product development and innovation, which requires informed consent of what customers are looking for and also knowing what tone to use when communicating with customers and partners. Additionally, creativeness appears to be a vital component of marketing professionals' roles, since it is critical for rational decision-making, as well as the company's innovation process and determining product attributes. The innovative dimension of the marketing specialist's position will remain a vital element of the position as the significance of companies seems to expand due to the entry of AI in marketing. Furthermore, marketing professionals should avoid placing too much reliance in data, as this can kill originality and may lead to risk aversion. As a result, marketing professionals will have to strike a balance between data and creativity. Nonetheless, because AI is expected to grasp aspects of the creativity process, it may be less crucial for the invention of new products.

## **6.2 Limitations of the study.**

During the research, a few setbacks were experienced. Firstly, the study is focused on six respondents who may have provided a small perspective of the actual situation. Therefore, results from this study may be applicable in this situation only. To have a generalized view, one might need to cover a wider scope of data collection and use quantitative research design. Although the situation in other organizations may be similar, there are a few areas where there is a disparity that may disallow the applicability of results from this study. Secondly, the time limit

was another limitation in the study. Although the respondents were interviewed on time, it is difficult to tell if the responses would have been different or more accurate under different circumstances.

Thirdly, considering the authors' efforts to reach as many people in AI technology and digital marketing as possible, it was hard to find professionals who felt comfortable discussing AI and digital marketing and sharing their perspectives on the topics. Even though the authors had several good leads, possible participants were not motivated in participating in this study due to their busy schedule or other constraints. However, in order to meet their personal objective of finishing ahead of time, the authors had to work under severe pressure. In addition, the authors agreed to attend industry events that could have produced more leads for interviewees. But, due to the time constraint, the authors were only able to attend one such event and had to rely on digital methods and channels to gather interviews. Nonetheless, working on and producing this study equipped the authors with excellent time management experiences. This thesis could not be done in such a short period of time if time management was not used.

### **6.3 Recommendations for Future Research**

This study has analyzed the importance of AI in digital marketing for companies today, looking at primary and secondary data to develop a clear analysis of the state of marketing today. However, the study on AI cannot be fully exhausted in this single paper. This research paves way for more study. Further studies can be done using different data sets from different regions, states, countries or different levels of companies and businesses. Findings from other respondents can be used to add to the scope of this study. Additionally, customer perspective of the AI and automation marketing technologies can be assessed by conducting a survey on different customers about their experience with digital marketing. This will provide an in-depth view of how technology is affecting the marketing sector in the modern economy.

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## **8.0 Appendix**

### **Appendix A**

#### **Interview Questions for AI Experts.**

(Audience introduction, demographics & Perspectives)

Tell us about your background and what you do in your work as well as how it relates to Artificial intelligence.

What does AI mean to you ?

How well do you understand digital marketing, Especially the relationship between AI and marketing?

Which skills do you believe marketing managers should possess in order to implement best practices in marketing automation?

How did you get the experience related to AI, SEO and Machine Learning?

(Machine learning and status of AI in marketing)

Do you have any experience with working with ML and content marketing and other forms of social media marketing? Follow up which ones?

Could you perhaps discuss which aspects of digital marketing are benefiting from artificial intelligence and machine learning?

What do you think AI will mean for marketing companies, consumers, and society in the long term?

In your opinion, what type of marketing opportunity does AI provide?

In your opinion, how far do marketers comprehend online infrastructures and/or other assisting AI tools and platforms?

How do you believe the connection between businesses and consumers will change as a result of artificial intelligence?

What is the biggest barrier in future AI development for marketing purposes?

## Interview questions for Marketers.

### (Audience introduction, demographics & Perspectives)

Tell me about your background and what you do in your work, as well as how it relates to digital marketing?

Do you have any experience with working on automation in digital marketing?

Where or how did you acquire your knowledge and how many years of experience do you have?

### (AI and Machine learning)

How do you believe the connection between businesses and consumers will evolve as a result of artificial intelligence, and how will this impact your work as a marketing manager?

What decisions are you making today that could be automated and/or aided by AI?  
Follow-up: How do you envision it evolving over the next few years?

Which AI technologies are being implemented today in your company?

Follow up: Have you as a company noticed any improvements after implementing AI in your marketing?

Has it been easier to reach your marketing goals after implementing AI in your marketing?

What does artificial intelligence mean for your marketing management responsibilities?

Which skills do you believe marketing managers should possess in order to implement best practices in marketing automation?

How do you think the relationship between firms and consumers will evolve because of AI, and how will it affect your role as a marketing manager?

## **Appendix B**

### **Interview Questions for Marketers**

Section 1A: (Audience *introduction, demographics and views*)

1. Tell us about your background, our role as well as how it relates to digital marketing?

Ecommerce Manager at a company providing AI and home networking solutions. Bachelor's degree in economics specialization in International Marketing.

Co-founder and chief operating officer at a startup. Master's degree in International Marketing. Experience in banking.

Digital Marketing Director at a software company. Master's degree in International marketing.

2. Do you have any experience with working on automation in digital marketing? Follow up which ones?

There is a level of automation and AI not covered. Lots of marketing that is available on Amazon is absolutely automated. Others include Facebook and HubSpot.

Yes, automation with the help of AI that assists in social media marketing and also helps customers schedule their workforce.

Some experience in start-ups and theoretical knowledge but not that extensive.

3. Where or how did you acquire your knowledge and how many years of experience do you have?

15 years of experience in marketing in the IT industry. Marketing and sales background.

5 plus year's experience through working in different roles.

Knowledge through work experience. Experience of two years.

Section 1b: (*Explain automation and artificial intelligence*)

4. How do you believe the connection between businesses and consumers will evolve because of artificial intelligence, and how will this impact your work as a marketing manager?

It's going to change everything and consume our entire reality in the next 20 to 25 years. A positive impact in the sense that companies can reach people in a different way, understand behavioral patterns of people and track what kind of outreach is achieved.

A positive evolution in the sense that businesses can understand the consumer needs using data and changes in customer preferences. Spending less time on marketing with the help of automation features.

Automation has an impact on my work by marketing more tailored products and services to target groups. So by automating things, it's possible to achieve precise targeting.

5. What decisions are you making today that could be automated and/or aided by AI? Follow-up: How do you envision it evolving over the next few years?

In terms of marketing, everything is automated on our platforms including the target groups and marketing campaigns.

Our future marketing campaigns and strategies could use the data that we have received from previous campaigns and we have sort of used AI, to map out the market and understand where people are and understand what kind of information actually gets the most hits. AI is going to change everything.

Connecting with customers on a personal level and understanding emotions is something that cannot fully be aided by AI.

6. Which AI technologies are being implemented today in your company?

Follow up: Have you as a company noticed any improvements after implementing AI in your marketing?

Google AI, machine learning products and HubSpot. AI has helped save time and possibility to learn things from processed data.

Machine learning, Python and AI integration. Ability to facilitate the use of data from other places, but also give information away if needed. In that sense, there's the potential to grow.

7. Has it been easier to reach your marketing goals after implementing AI in your marketing?

To some extent yes. We can see exactly how much was generated in sales through which time frame as everything is super granular in detail. It's very easy to make decisions.

We've always had AI in our marketing from day one, so it's been efficient, but the more that we implement new ways, the better it gets because it learns from the data. We have successful marketing to begin with because our clients understood our value proposition.

Yes it has made it easy to reach our goals because the data informs us a lot on many areas that need improvement or a way to move forward.

8. What does artificial intelligence mean for your marketing management responsibilities?

Man-made intelligence.

Creating what's in the brain into a computer basically. So, we are able to facilitate the same kind of thought patterns and the same kind of discussions and the same kind of assumptions and the same kind of actual functionality that we have as human beings but in technology.

9. Which skills do you believe marketing managers should possess in order to implement best practices in marketing automation?

Marketers need theoretical background and technical ability to use all these tools and to be quick to learn because things are always changing.

Flexibility and adaptation. Ability to use AI and integrate different types of AI and other tools in marketing.

Marketers should be tech savvy and can learn these skills online.

## **Interview Questions for AI experts.**

Section 1B: (Audience *introduction, demographics and views*)

1. Tell us about your background and what you do in your work as well as how it relates to Artificial intelligence.

Programmer from a young age. Working as Project manager for an AI company. Master's degree in economics and political science.

Author of AI and inbound marketing. Background in electrical engineering, worked for an advertising company and now president of a Marketing agency.

2. What does AI mean to you?

AI is like a brain. It's concluding what humans conclude, but at a faster rate.

It's the ability of computers or machines to perform human work but more efficiently.

3. How well do you understand digital marketing, Especially the relationship between AI and marketing?

Good understanding. Working with marketing clients who use the AI to analyze emotions. The analysis is used for content marketing and target marketing ads.

Using technology for marketing. Using AI in Inbound marketing is a strategy that draws customers by creating valuable, personalized information and experiences.

4. Which skills do you believe marketing managers should possess in order to implement best practices in marketing automation?

Marketers can take short courses to learn AI. 12-day python coding course.

Marketers can use HubSpot and other platforms for automation.

5. How did you get the experience related to AI, SEO and Machine Learning?

Programming from a young age. Working experience as project manager.

Working experience using AI in inbound marketing.

6. Do you have any experience with working with ML and content marketing and other forms of social media marketing?

Yes, ML and content marketing where our clients tailor content for their target advertisement.

Social media marketing and content marketing without ML.

7. Could you perhaps discuss which aspects of digital marketing are benefiting from artificial intelligence and machine learning?

Search engine optimization

Advertising and content marketing.

Using keywords for marketing analytics

8. What do you think AI will mean for marketing companies, consumers, and society in the long term?

AI must be included into the strategy of businesses. Consequently, leveraging its advantages and remaining competitive.

While it is crucial for consumers to understand the relationship between advertisements and data gathering, it is also essential that they understand how advertisements connect to data collection.

It could mean a lot but the right rules should be formulated to control data gathered through using AI



